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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,641	03/29/2004	Walter E. Donovan	NVDA P001152	2379

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EXAMINER

NGUYEN, HAU H

ART UNIT PAPER NUMBER

2628

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/811,641	Applicant(s) DONOVAN, WALTER E.	
	Examiner Hau H. Nguyen	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/29/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/29/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-22 include the features “non-power of two texture map” and “LOD”, which are not clarified and precisely defined to distinctly point out the claimed subject matter. Correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 10-17, 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Iourcha et al. (U.S. Patent No. 6,304,268).

Referring to claim 1, Iourcha et al. teach a method of computing an unnormalized texture map coordinate for a non power of two texture map (col. 5, lines 37-45), comprising
receiving a normalized texture map coordinate corresponding to the non-power of two texture map (such as receiving LODs 102, 104, 106, Fig. 1);
receiving a non-power of two LOD dimension (fractional portion of level of detail fd) corresponding to the non-power of two texture map (such as intermediate level 108, Fig. 1); and

scaling the normalized texture map coordinate by the non-power of two LOD dimension to compute the unnormalized texture map coordinate for the non-power of two texture map (col. 5, lines 37-67, see also Fig. 15).

As per claims 2 and 3, Iourcha et al. teach the non-power of two LOD dimension is a width and a height (col. 6, lines 48-60).

As per claim 4, Iourcha et al. further teach the unnormalized texture map coordinate for the non-power of two texture map is used to determine an address of a texel within the non-power of two texture map (Figs. 11A-D, col. 12, line 42 to col. 13, line 4).

As per claim 11, Iourcha et al. teach the texel is filter as a function of a weight to produce a filtered texel for a fragment (col. 4, line 60 to col. 5, line 10, and Fig. 13, item 1310).

Claims 5-6, and 10, 13-16, which are similar in scope to claims 1-4, 11, are thus rejected under the same rationale.

As per claim 7, Iourcha et al. teach the normalized texture map coordinate corresponding to the non-power of two texture map is represented in a floating point format (i.e. fractional portion, fd as cited above).

As per claim 12, Iourcha et al. also teach the non-power of two texture map is a video image (as can be used in video games, col. 1, lines 33-35).

As per claim 17, Iourcha et al. teach a parameter conversion unit configured to receive the normalized texture coordinate corresponding to the non-power of two texture map and produce the reduced portion of the normalized texture coordinate (col. 7, lines 5-25).

Claims 19-21, which are similar in scope to claims 1-4, are thus rejected under the same rationale.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-9, 18, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iourcha et al. (U.S. Patent No. 6,304,268) in view of Taylor et al. (U.S. Patent No. 6,518,974).

As per claims 8 and 18, as cited above, Iourcha et al. teach all the limitations of claims 8 and 18, except for performing a wrap function. However, Taylor et al. teach a method of obtaining a correct level of detail (LOD), in which the texture map may not be power of two texture map (col. 23, lines 26-29). Taylor et al. also teach performing wrap computation based a wrap mode (col. 22, lines 20-33). Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Taylor et al. in combination with the method as taught by Iourcha et al. to obtain an enhanced texture mapping, and thus, providing a more realistic final image.

As per claim 9, which is similar in scope to claim 5, is thus rejected under the same rationale.

As per claim 22, although not explicitly taught by Iourcha et al., Taylor et al. teach the graphics processor including a rasterizer configured to produce the normalized texture coordinate (col. 7, lines 56-62).

Conclusion

Art Unit: 2628

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Zhao et al. (U.S. Patent No. 5,945,997) discloses texture mapping method in which the dimension of the level of detail map is not restricted to power of two.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 571-272-7787. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794.

The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H. Nguyen

8/29/2006



KEE M. TUNG
SUPERVISORY PATENT EXAMINER